BookletChart™

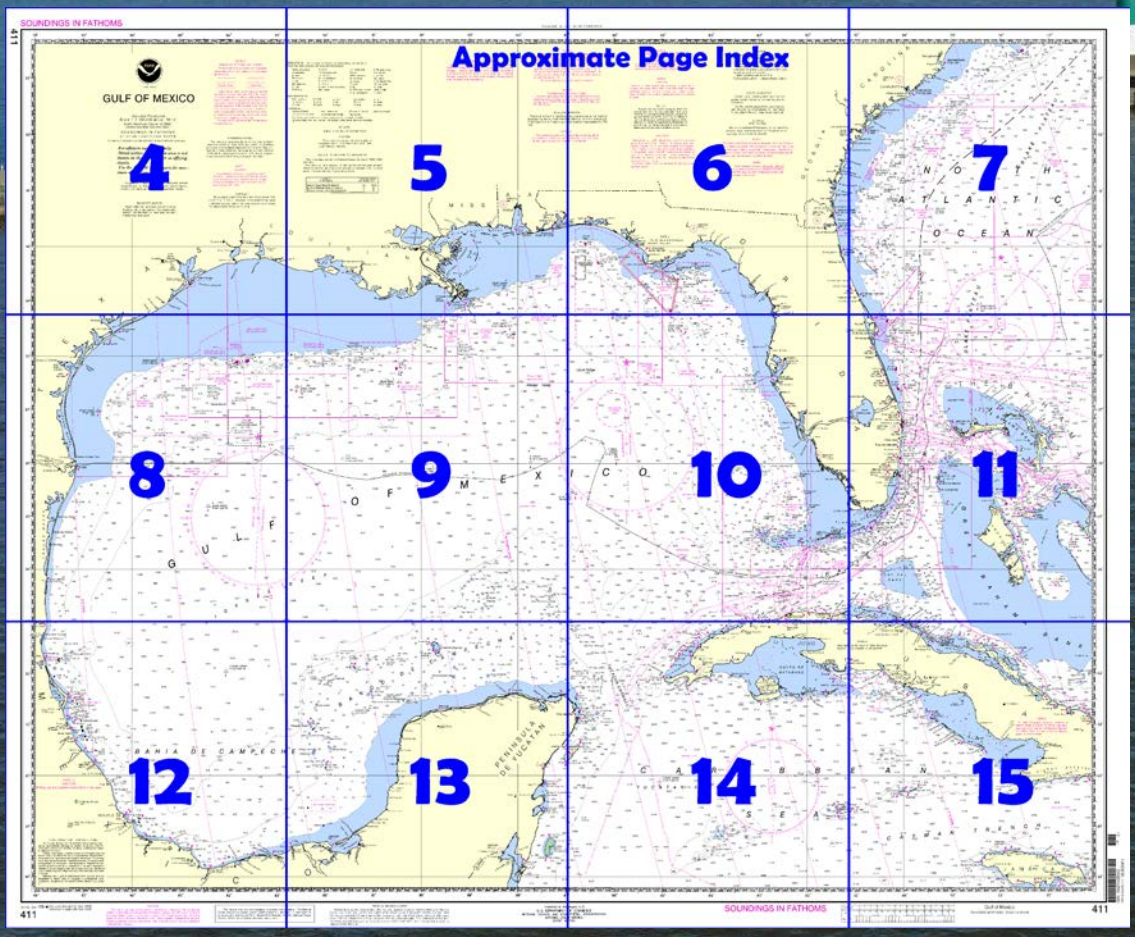
Gulf of Mexico

NOAA Chart 411

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.

- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

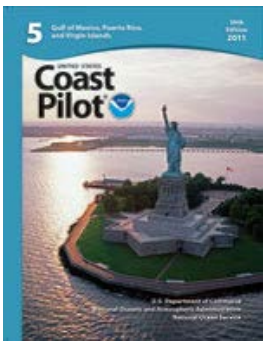
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/coastpilot_w.php?book=5

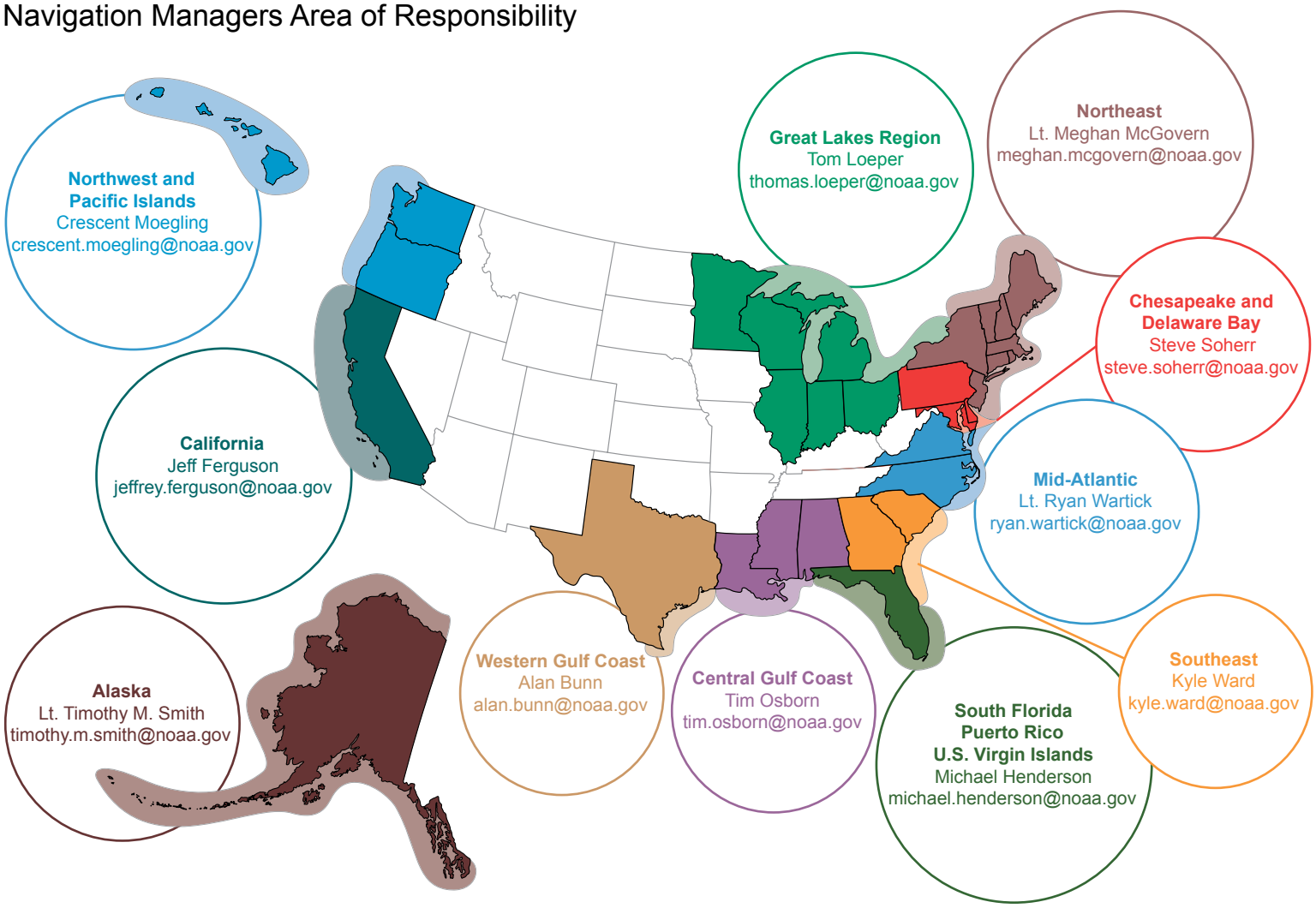


[Coast Pilot 5, Chapter 3 excerpts]
The **Gulf of Mexico** coast of the United States, from Key West, Fla., to the Rio Grande, is low and mostly sandy, presenting no marked natural features to the mariner approaching from seaward; shoal water generally extends well offshore. The principal points and harbor entrances are marked by lights, which are the chief guides for approaching or standing along the coast.
From the S shore of the Florida mainland, the **Florida Reefs** extend for about 134 miles in the SW curve to Sand Key Light, and about 58 miles in a W direction to Loggerhead Key. These keys and reefs are of sand, shell, and coral formation. The reefs have frequent shoal patches. The keys are generally low and covered with mangrove. Together, they form the N boundary of the **Straits of Florida.** Toward the W end are several openings between the keys offering passage from the straits into the Gulf.
The SW extremity of the Florida mainland is part of the Everglades National Park and Big Cypress Swamp. Much of these areas are under water throughout the year and are nearly all covered during the rainy summer season. Fronting the swampy areas are the Ten Thousand Islands, a group of low mangrove-covered islands divided by tidal channels. N of the Ten Thousand Islands the coast is low, sandy, and generally backed by pine forests and **Hammocks.** These hammocks are a jungle of tropical trees, mostly hardwood, which appear as an impenetrable green wall.
From Cape Romano to Anclote Keys the coast becomes a barrier beach of low islands separated by inlets, most of which are small and cannot be distinguished from offshore. Between Anclote Keys and St. James Island, the W side of Apalachee Bay, the coast is low and marshy for 1 to 2 miles inland then backed by pine forests. The shoreline is broken by a number of unimportant rivers and creeks.
W of St. James Island to the South Pass of the Mississippi River, the coast is mostly a barrier beach of low, wooded, sand islands. The general drift of these islands is to the W which causes an encroachment upon the channels between them. Hurricanes and heavy gales will sometimes change the shape of these islands and in some cases they have washed away leaving only shoals.
State Boundaries.–The boundary between Florida and Alabama follows the Perdido River. The Alabama-Mississippi boundary follows a marked line cutting across the E end of Petit Bois Island, through Grande Batture Islands. Pearl River, from its most E junction with Lake Borgne, forms the boundary between Mississippi and Louisiana.
St. Petersburg, a large winter resort city, is on the W side of Tampa Bay 6 miles S of Gandy Bridge; and major highways connect it with all parts of the State. The Gandy Bridge and Frankland Bridge offer a short route to Tampa, and the Sunshine Skyway, a toll bridge, connects with points to the S.
St. Petersburg has a city hospital and several private hospitals. Gasoline, diesel fuel, water, ice, provisions, and marine supplies are available in quantity. Boats can be chartered and guides engaged. The St. Petersburg–Clearwater International Airport is N of the city, and the Albert Whitted Municipal Airport is on the E waterfront at the center of the city.
Point Pinellas channel extends N for about 5.5 miles from deep water in lower Tampa Bay to an entrance channel leading W to basins at the Port of St. Petersburg and **Bayboro Harbor**. In 2008, the controlling depths were 19 feet in Point Pinellas channel, thence 21 feet in the entrance channel to the turning basin at the Port of St. Petersburg with depths of 21 to 23 feet in the basin, except for shoaling in the SE corner near Light 10, thence 15 feet to the basin at Bayboro Harbor with 10 to 12 feet available in the basin, except for lesser depths along the S edge.

U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies

RCC New Orleans	Commander 8th CG District New Orleans, LA	(504) 589-6225

Navigation Managers Area of Responsibility

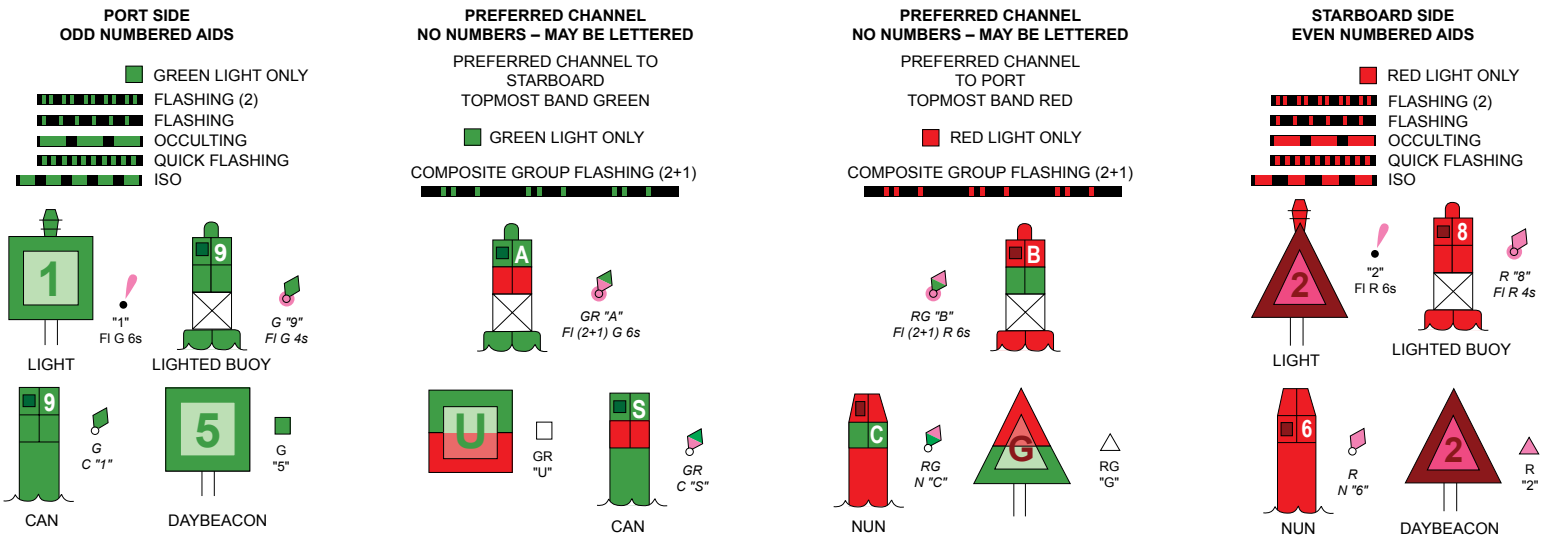


NOAA's navigation managers serve as ambassadors to the maritime community. They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit *nauticalcharts.noaa.gov/service/navmanagers*

To make suggestions or ask questions online, go to *nauticalcharts.noaa.gov/inquiry*.
To report a chart discrepancy, please use *ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx*.

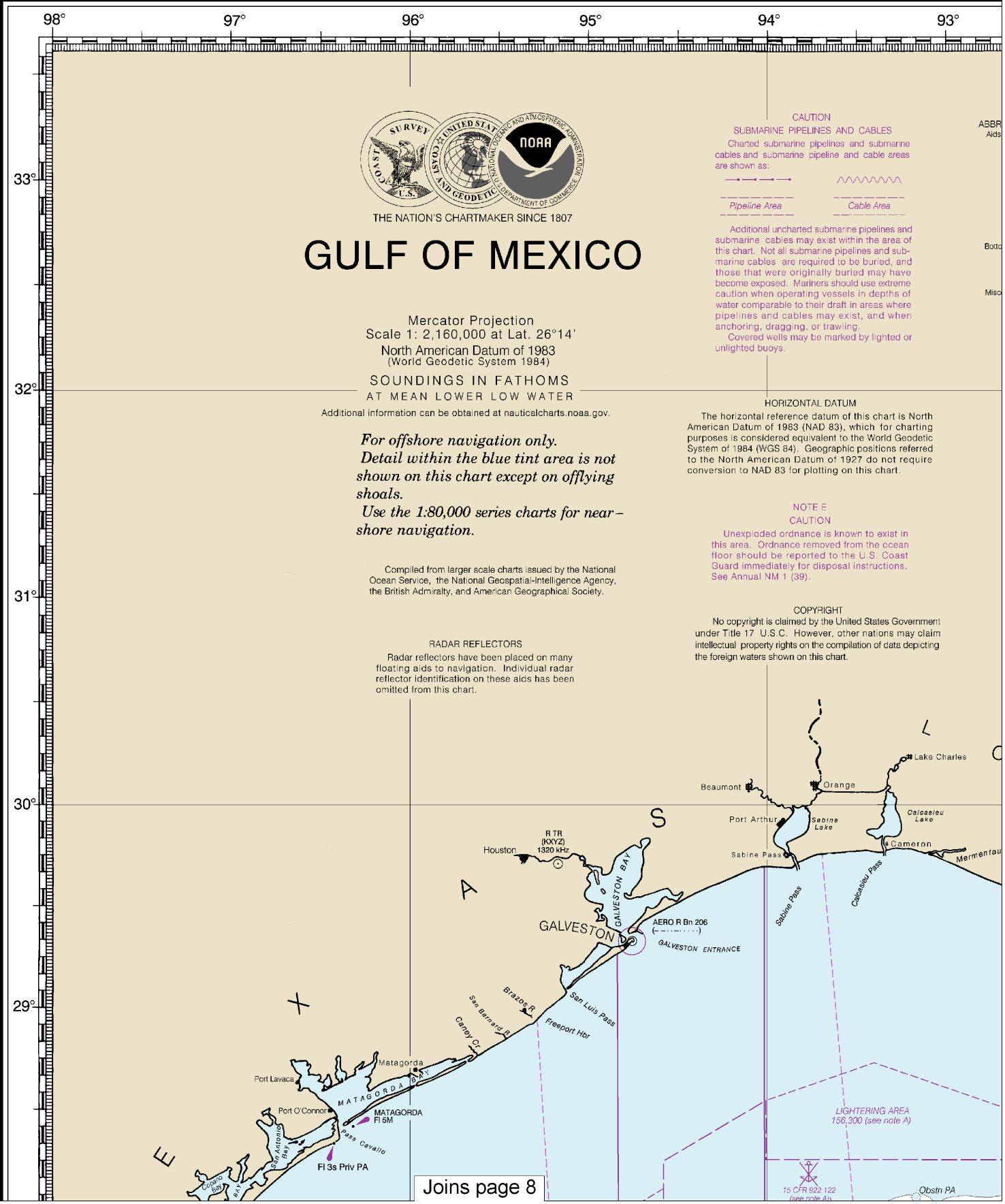
Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area. These volumes are available online at *http://www.navcen.uscg.gov*

SOUNDINGS IN FATHOMS



4

Note: Chart grid lines are aligned with true north.

92° 91° 90° 89° 88° 87°

BREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
ds to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

ttom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

scellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

(1) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

HEIGHTS
Heights in feet above Mean High Water.

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

GULF STREAM CURRENTS

From investigations by the National Ocean Service in 1885, 1886 and 1887.

The direction and velocity of the current are indicated at each station by arrows: the long arrow indicates maximum and the short arrow minimum velocity; figures show knots.

Locality of Current stations	Time of max velocity after Moons Transit	
East of Fowey Rocks (6 stations)	3 h	00 m
South of Rebecca Shoal (5 stations)	3	40
Between Yucatan and Cuba (6 stations)	3	24

MAGNETIC VARIATION

Magnetic variation curves are for 2013 derived from 2010 World Magnetic Model and accompanying secular change. If annual change is in same direction as variation it is additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

NOTE A

Navigation regulations are pul
Coast Pilots 4 and 5. Additions
are published in the Local Notice
concerning the regulations may
of the Commander, 7th Coast G
and 8th Coast Guard District in N
Office of the District Engineer
Charleston, SC, Jacksonville, FL,
LA and Galveston, TX.
Refer to charted regulatio

NOTE B

WEATHER ROCKET IN

Mariners are cautioned agains
impact area due to falling rocket ca
during hours 1930-2100 Eastern
through Friday.

POLLUTION RE

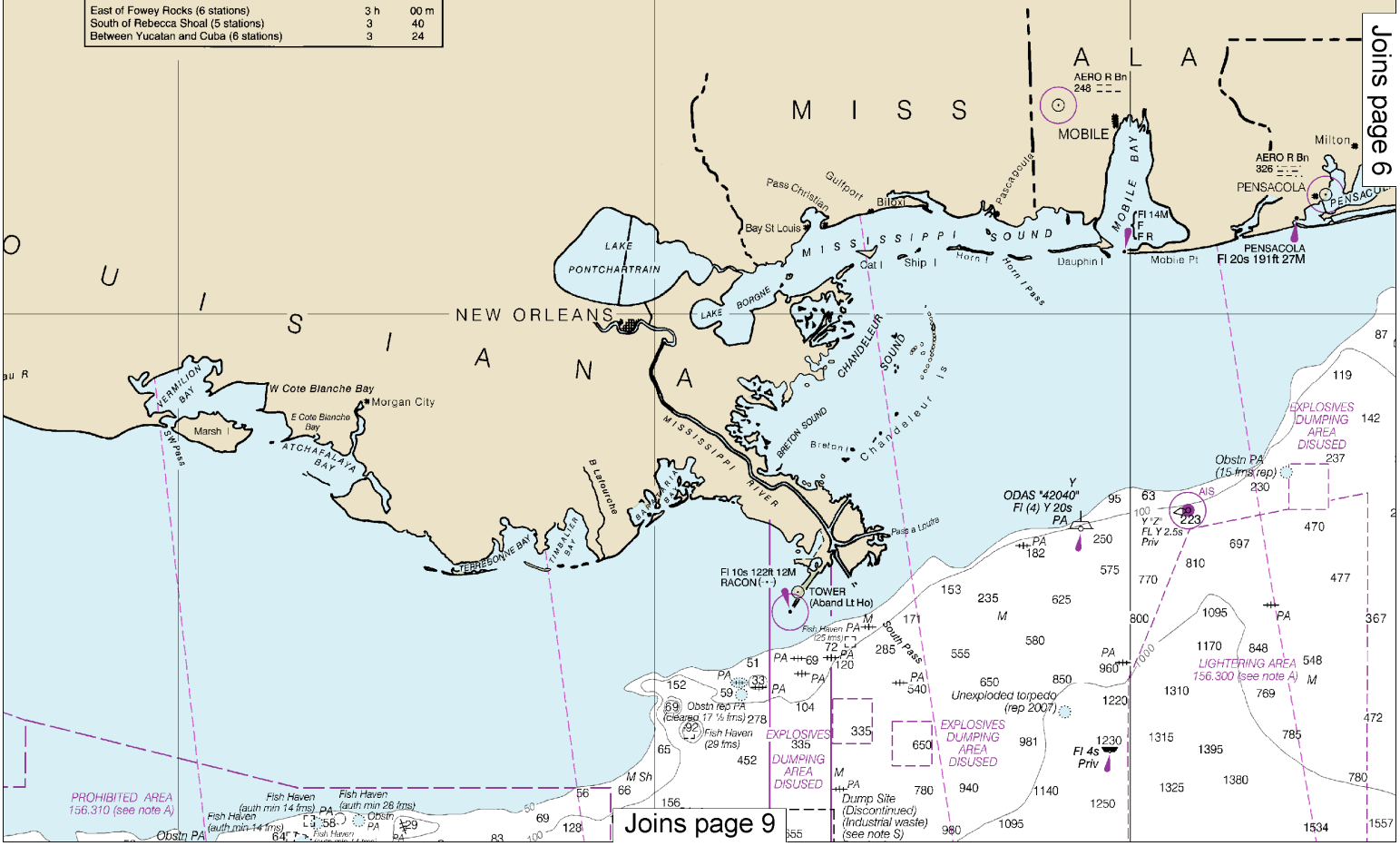
Report all spills of oil and hazardo
Response Center via 1-800-424-8802
Coast Guard facility if telephone comm
153).

WARNING

The prudent mariner will not rely
to navigation, particularly on floati
Guard Light List and U.S. Coast Pil

NOTE X

Within the 12-nautical mile Territorial Sea, est
some Federal laws apply. The Three Nautical
outer limit of the territorial sea, is retained as it
limit of the other laws. The 9-nautical mile Natura
of Florida, Texas, and Puerto Rico, and the Three
most cases the inner limit of Federal fisheries
jurisdiction of the states. The 24-nautical mile C
mile Exclusive Economic Zone were establis
Unless fixed by treaty or the U.S. Supreme Cou
to modification.



Joins page 6

Joins page 9

This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:2880000. Barscales have also been reduced an
are accurate when used to measure distances in this BookletChart.

87° 86° 85° 84° 83° 82°

NOTE A

ion regulations are published in Chapter 2, U.S. ts 4 and 5. Additions or revisions to Chapter 2 hed in the Local Notice to Mariners. Information g the regulations may be obtained at the Office mmander, 7th Coast Guard District in Miami, FL oast Guard District in New Orleans, LA, or at the the District Engineer, Corps of Engineers, in , SC, Jacksonville, FL, Mobile, AL, New Orleans, alveston, TX. r to charted regulation section numbers.

NOTE B

WEATHER ROCKET IMPACT AREA

s are cautioned against possible hazards in the due to falling rocket casings. Hazards may exist rs 1930-2100 Eastern Standard Time, Monday day.

POLLUTION REPORTS

ills of oil and hazardous substances to the National r via 1-800-424-8802 (toll free), or to the nearest U.S. ility if telephone communication is impossible (33 CFR

WARNING

ent mariner will not rely solely on any single aid n, particularly on floating aids. See U.S. Coast List and U.S. Coast Pilot for details.

NOTE X

l mile Territorial Sea, established by Presidential Proclamation, y. The Three Nautical Mile Line, previously identified as the l sea, is retained as it continues to depict the jurisdictional he 9-nautical mile Natural Resource Boundary off the Gulf coast erto Rico, and the Three Nautical Mile Line elsewhere remain in hit of Federal fisheries jurisdiction and the outer limit of the . The 24-nautical mile Contiguous Zone and the 200-nautical hic Zone were established by Presidential Proclamation. r the U.S. Supreme Court, these maritime limits are subject

NOTE D

CHEMICAL MUNITIONS DUMPING AREA - RESTRICTION

Site was formerly used or designated for U.S. chemical munitions dumping. Such use has been discontinued. Designation of such area in no way constitutes authority for dumping.

NOTE F

CAUTION

Trawlers or other vessels should exercise caution while dragging the ocean floor within a 40 mile radius of Cape Canaveral, Florida, since it is known that missle debris, some of which may contain unexploded ordnance, exists in this area.

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

CAUTION

Gas and Oil Well Structures

Numerous platforms and gas and oil well structures exist in the Gulf of Mexico from Key West, Florida to Brazos Santiago, Texas. Some wells are submerged and capped. Only those structures reported submerged and covered less than 11 fathoms are charted outside of the 10 fathom curve. See Charts in the 1:400,000 scale range and 1:80,000 scale series charts for location of surface platform structures and wells submerged 11 fathoms or more, submarine pipelines and cables, aids to navigation and safety fairways through operational oil field areas.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

⊙(Accurate location) o(Approximate location)

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

See National Geospatial-Intelligence Agency Lists of Lights and Fog Signals for information not included in the U.S. Coast Guard Light List.

CAUTION

FISH HAVENS

Numerous uncharted Fish Havens, some marked by private buoys, exist seaward of the 10-fathom curve. See larger scale charts for location.

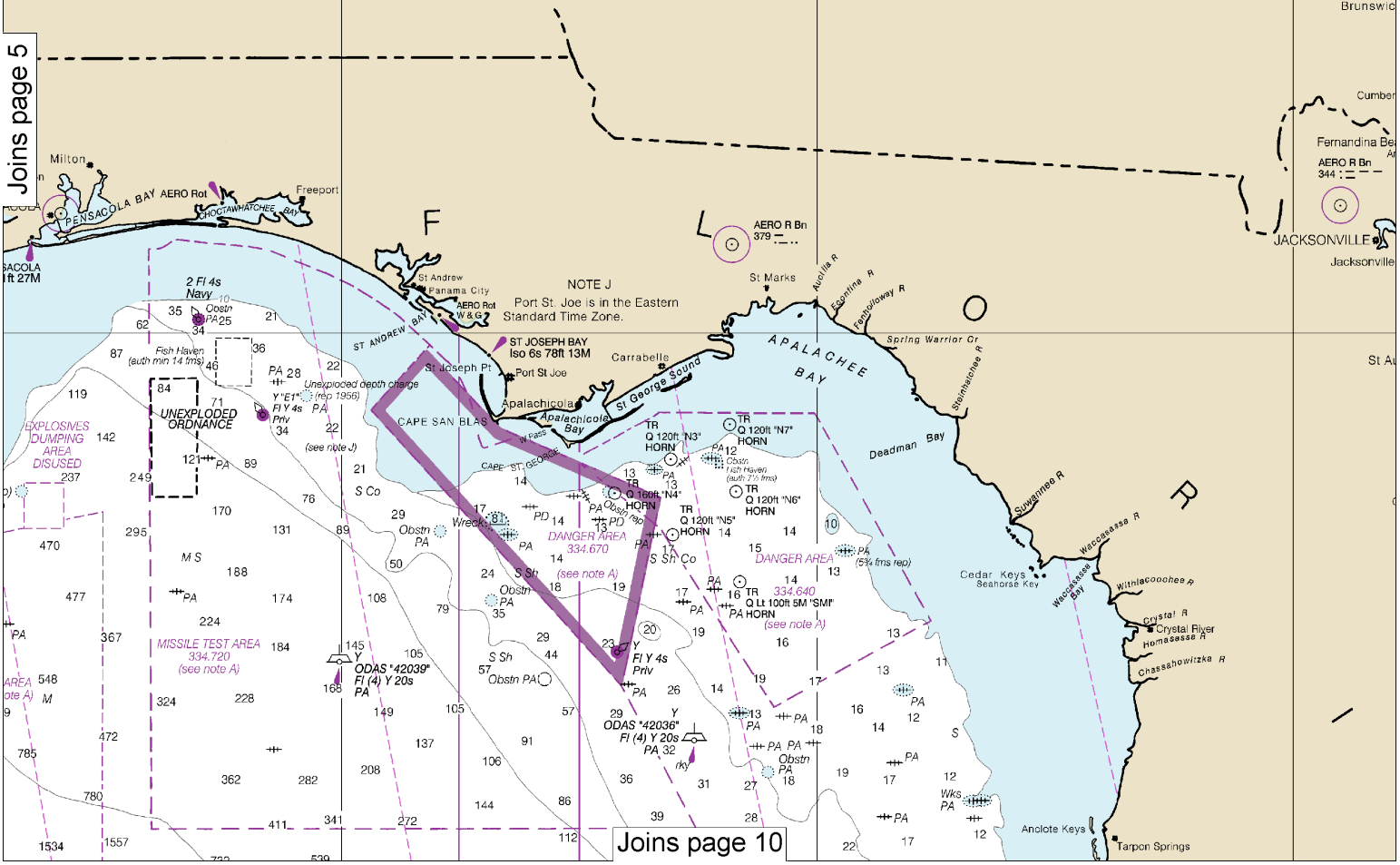
NOTE H

The heavy dashed magenta lines represent the limits of launch hazard areas associated with the majority of launches from Cape Canaveral. Launch debris may fall within these areas. See Notice to Mariners or contact the Coast Guard for launch hazard areas specific to each launch and the times they will be in effect.

NOTE I

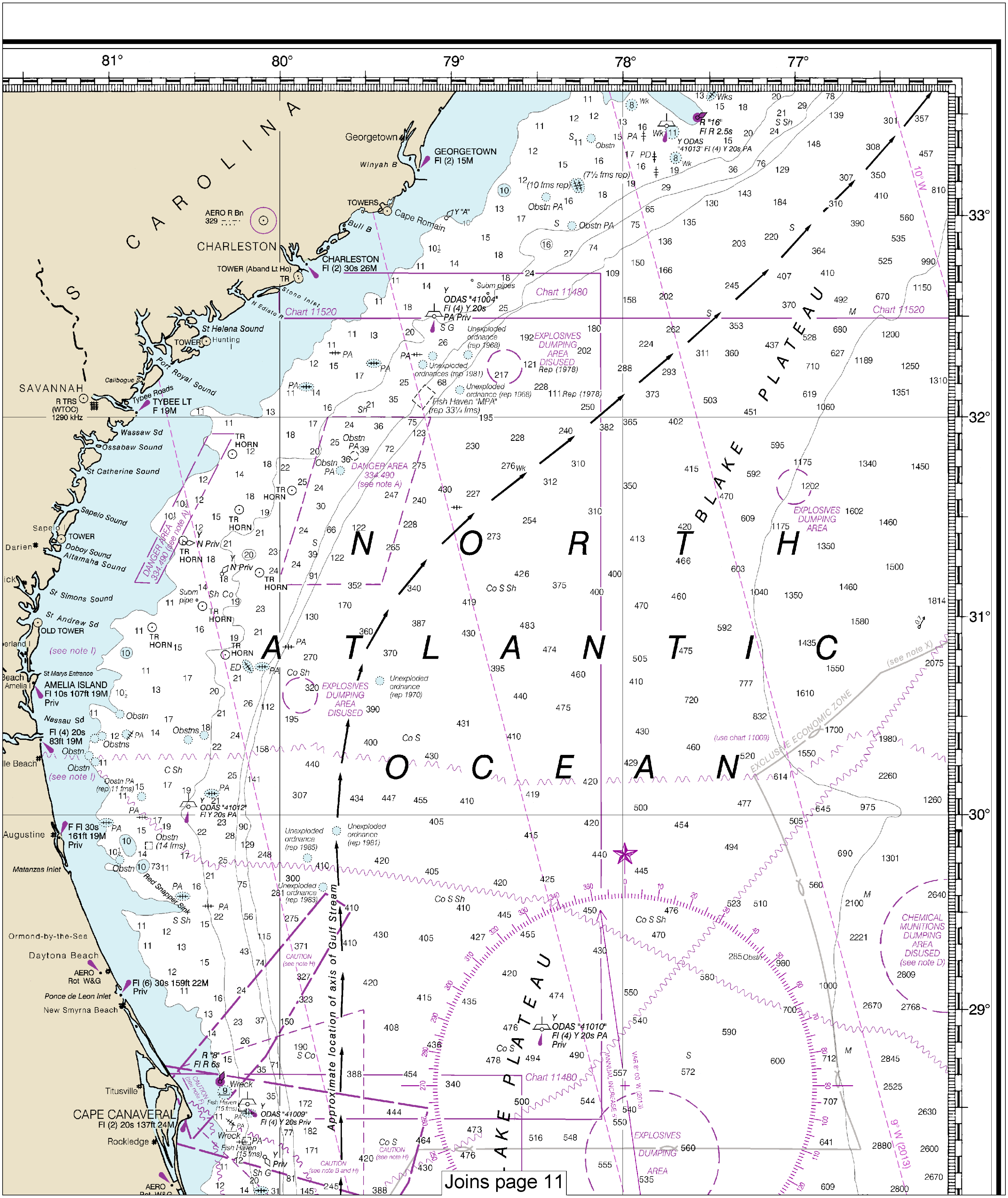
Recommended routing to reduce the likelihood of ship strikes of endangered whales are in effect within this area, but are not depicted on this chart. See larger scale charts.

Joins page 5

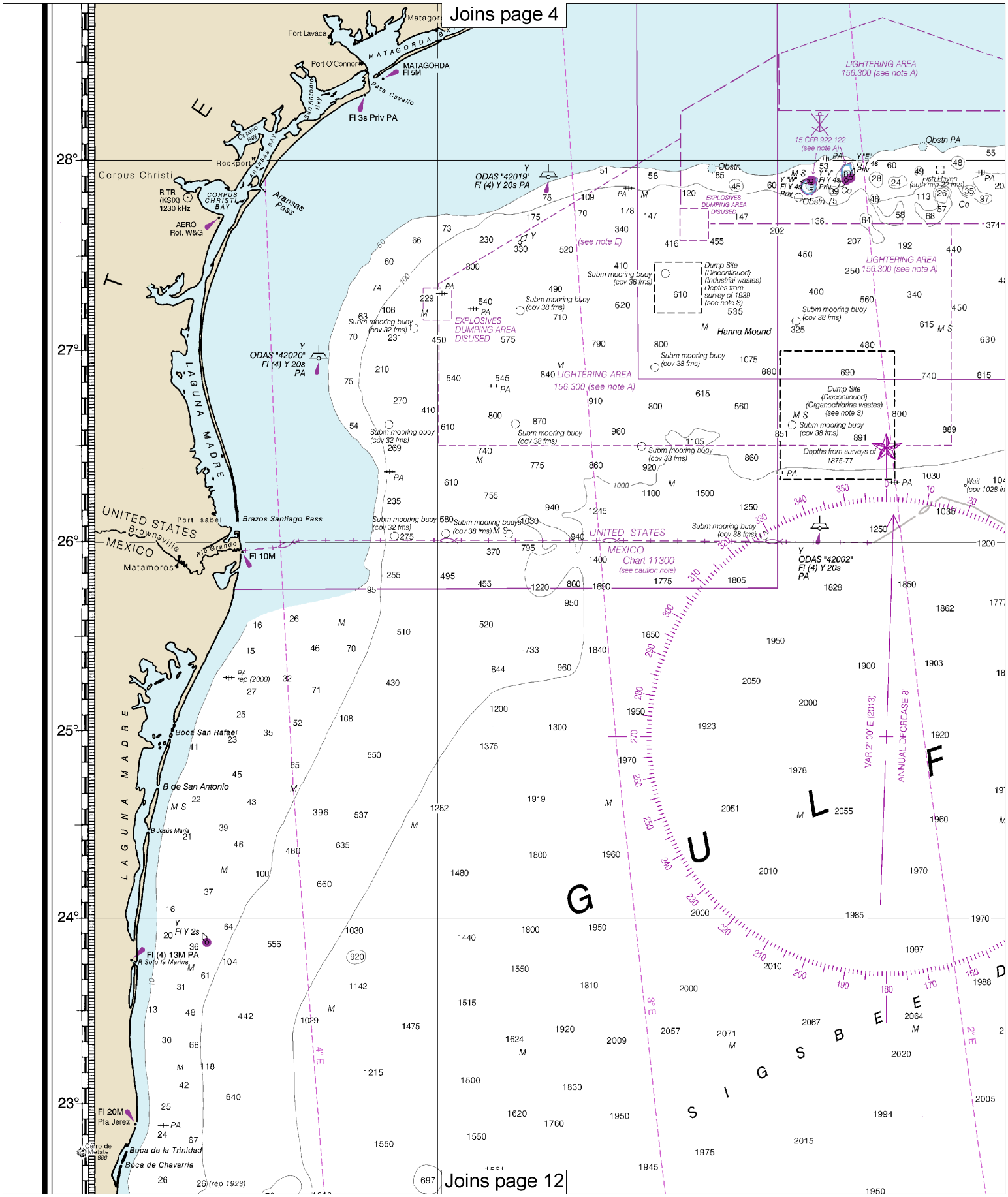


Joins page 10

Note: Chart grid lines are aligned with true north.



nauticalcharts.noaa.gov.
Last Correction: 11/3/2016. Cleared through:
LNM: 4516 (11/8/2016), NM: 4416 (10/29/2016)



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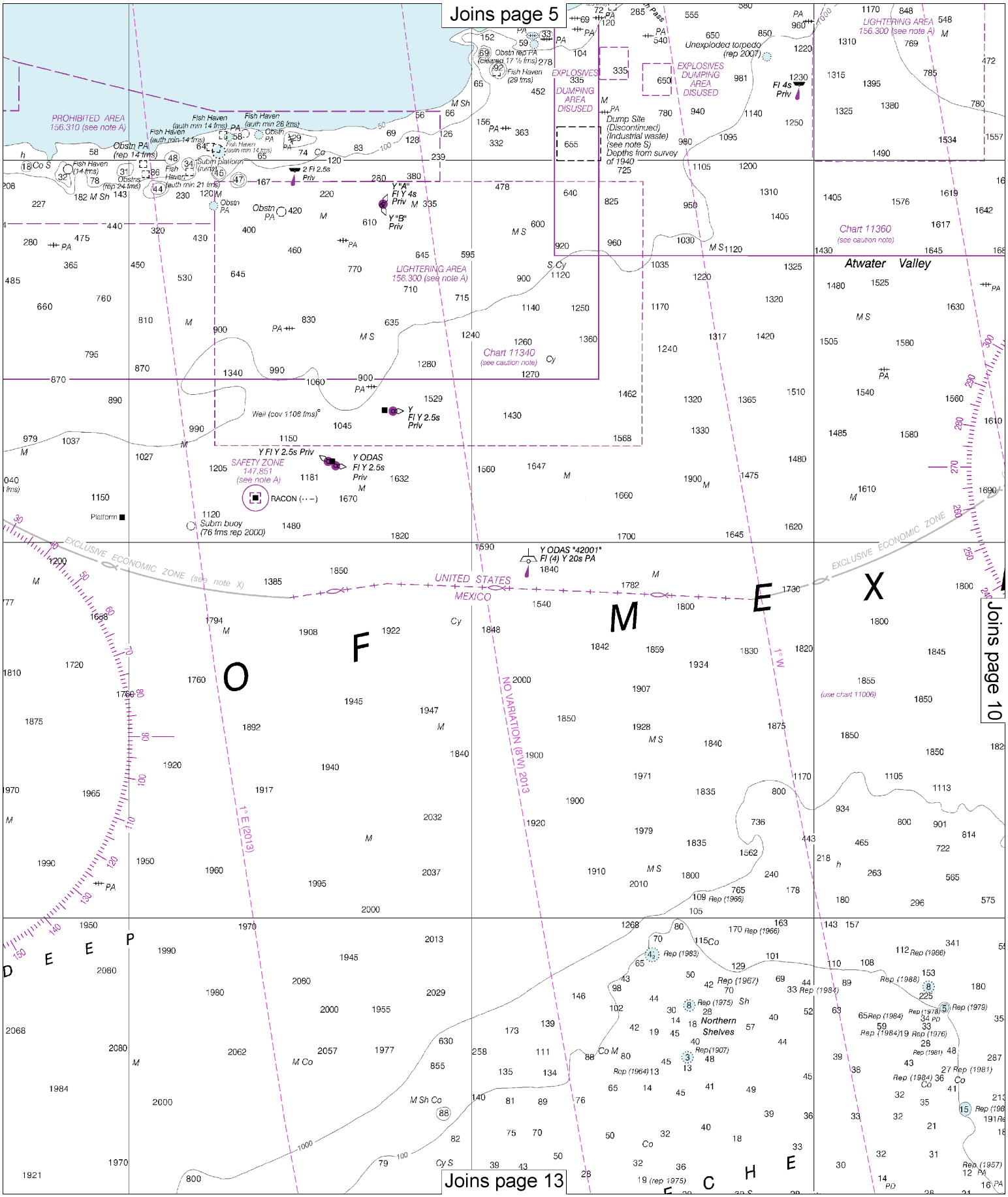
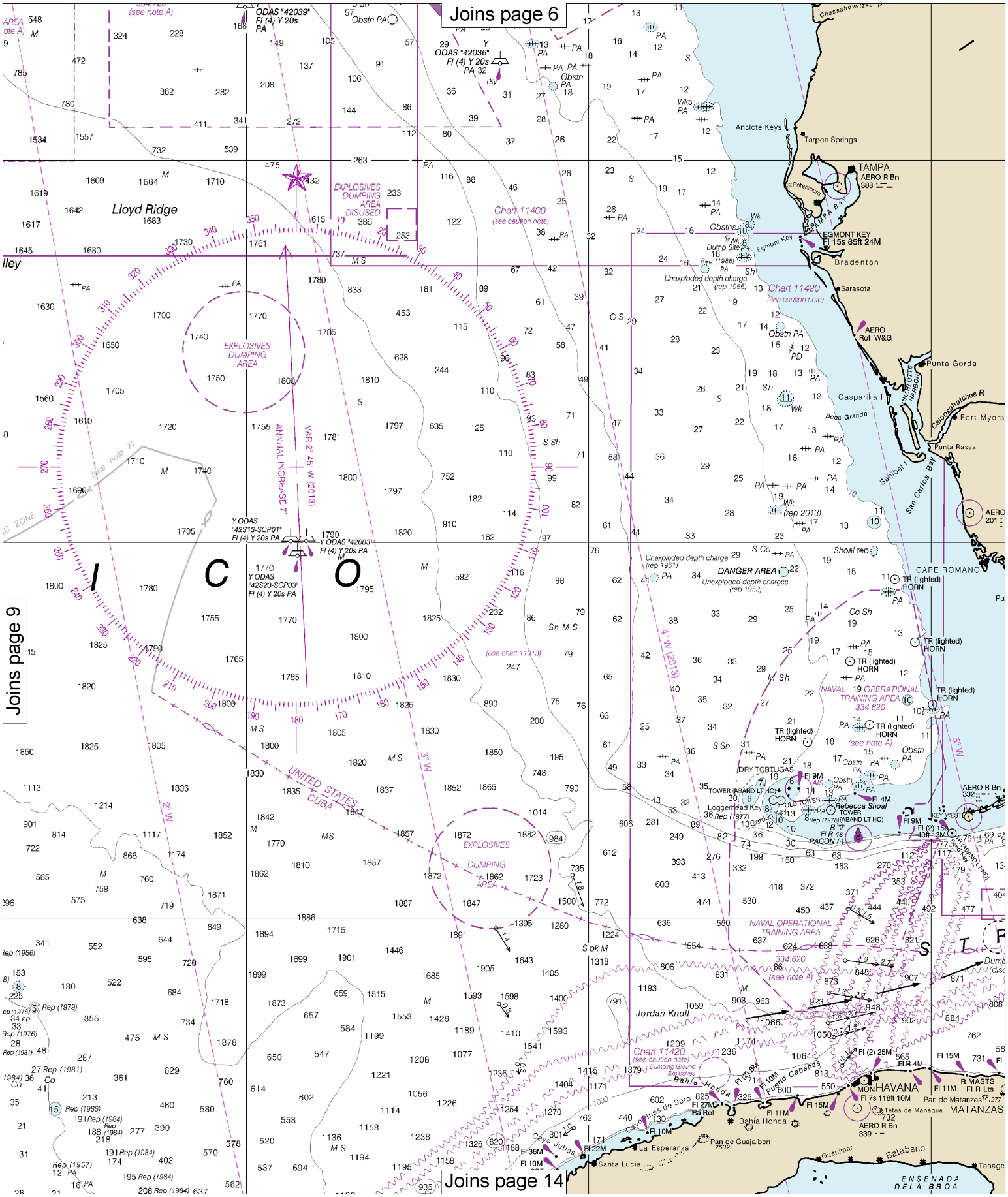
Note: Chart grid lines are aligned with true north.


Joins page 5
PROHIBITED AREA 156.310 (see note A)
EXPLOSIVES DUMPING AREA DISUSED
Unexploded torpedo (rep 2007)
Dump Site (Discontinued) (Industrial waste) (see note S) Depths from survey of 1940
LIGHTERING AREA 156.300 (see note A)
Chart 11360 (see caution note)
Atwater Valley
Chart 11340 (see caution note)
SAFETY ZONE 147.851 (see note A)
RACON (··–)
Platform
Subm buoy (76 fms rep 2000)
Y ODAS 42001 Fl (4) Y 20s PA
EXCLUSIVE ECONOMIC ZONE (see note X)
UNITED STATES
MEXICO
NO VARIATION (8'W 2013)
1° E (2013)
1° W
Northern Shelves
Joins page 10
Joins page 13



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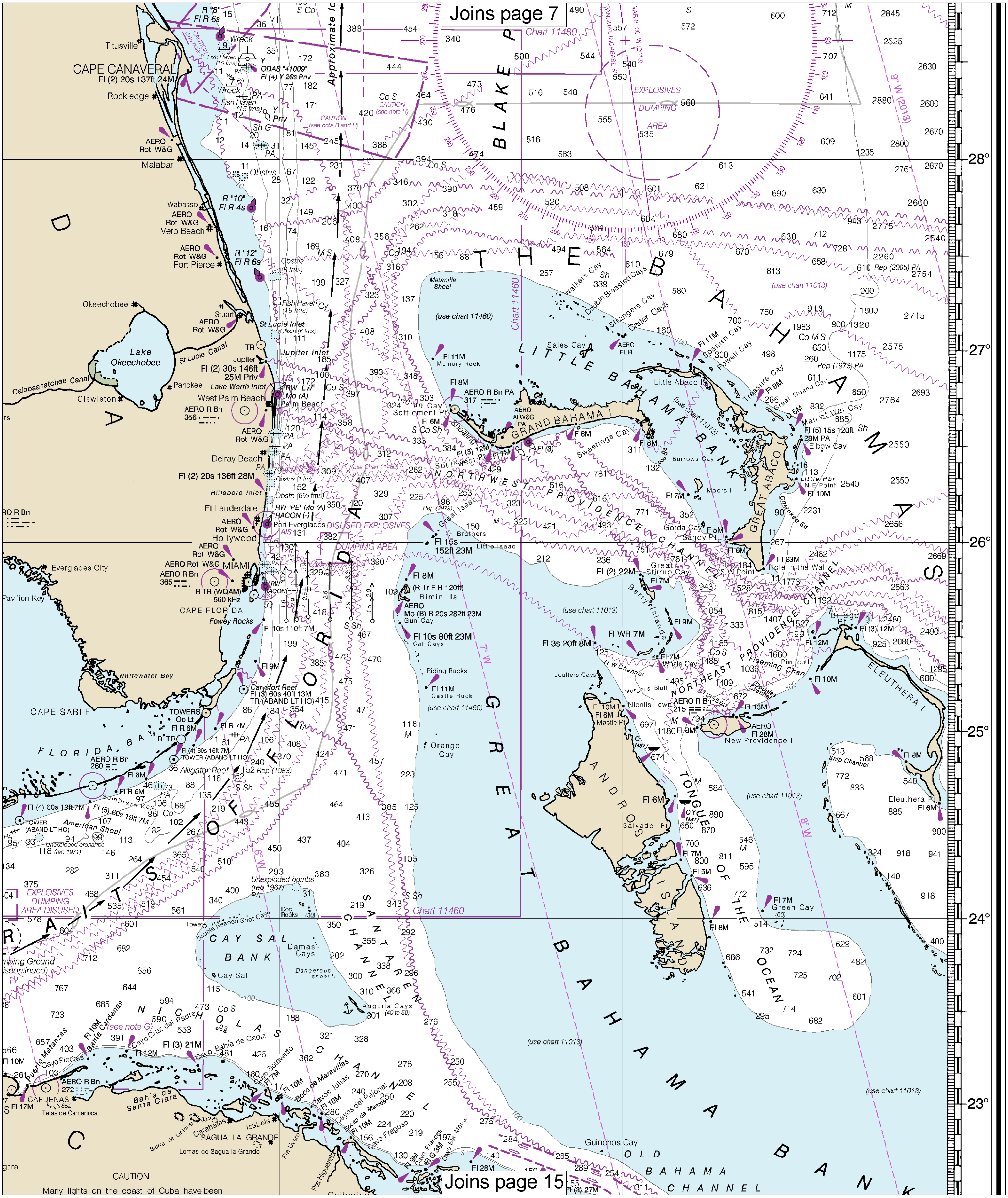
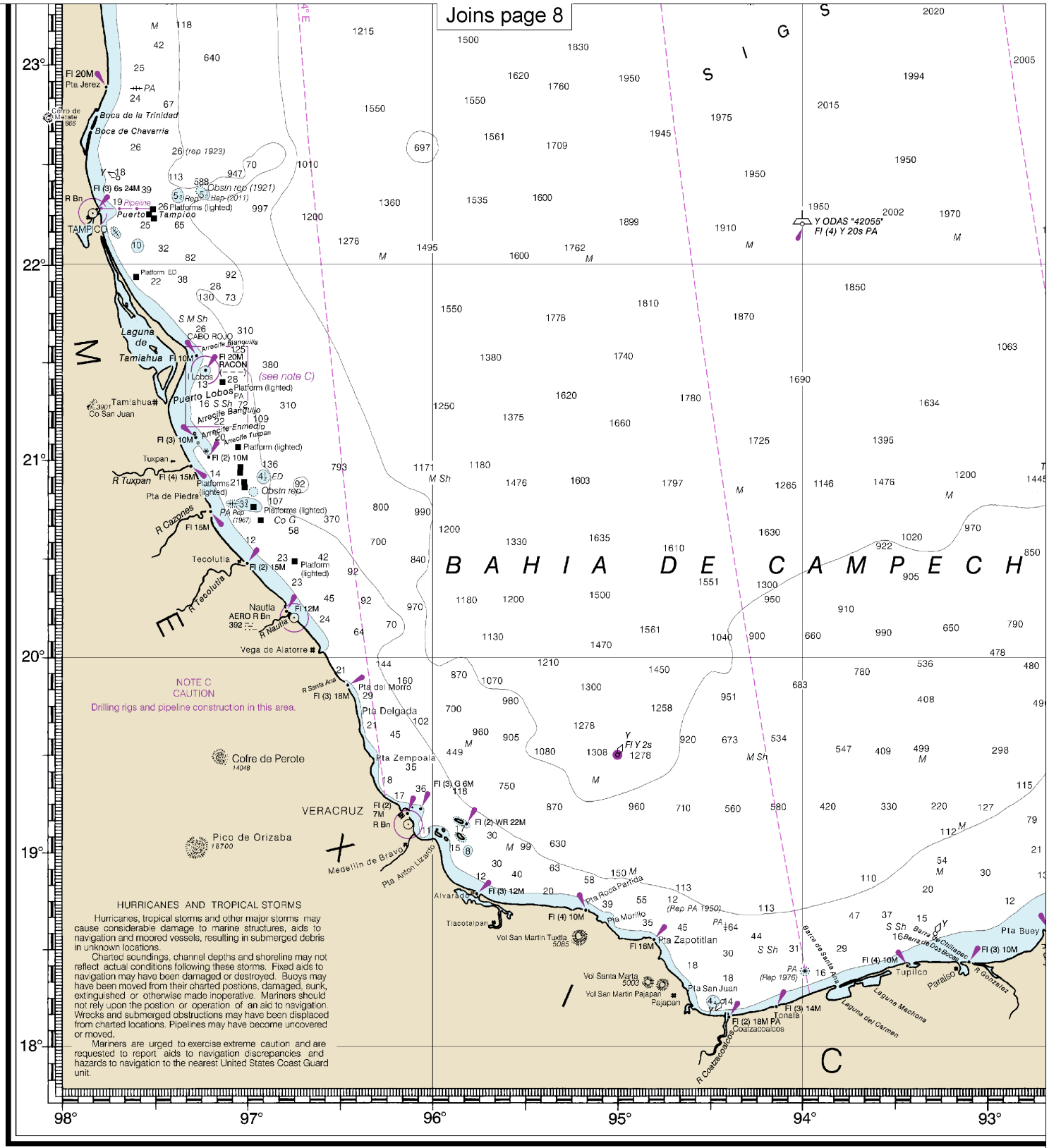
Joins page 7



Joins page 15



54th Ed., Aug./ 13

411

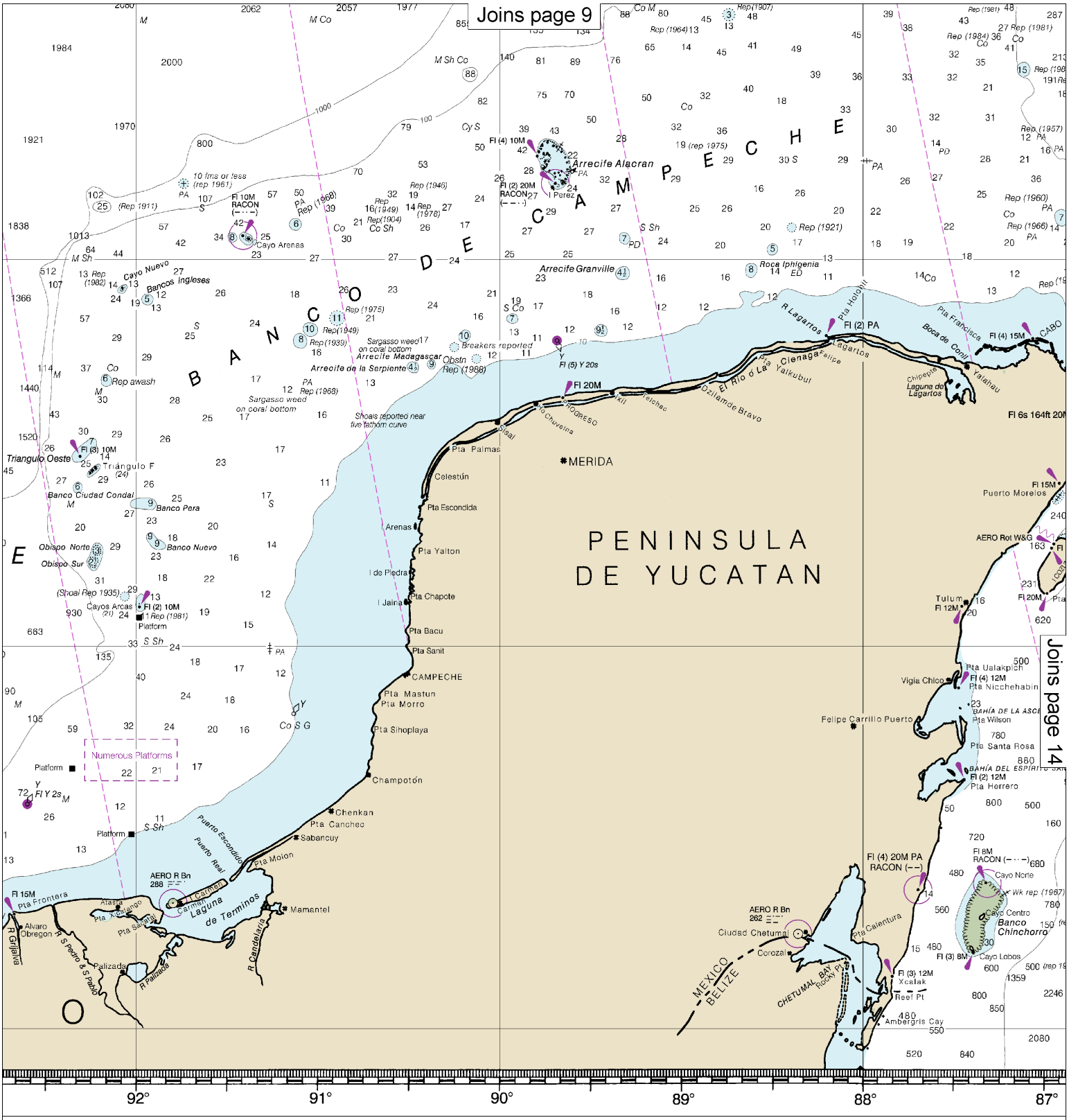
CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

This nautical chart has been designed to promote safe navigat
Ocean Service encourages users to submit corrections, additions,
improving this chart to the Chief, Marine Chart Division (N/CS2)
Service, NOAA, Silver Spring, Maryland 20910-3282.

Last Correction: 11/3/2016. Cleared through:
LNM: 4516 (11/8/2016), NM: 4416 (10/29/2016)

Note: Chart grid lines are aligned with true north.



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2), National Ocean

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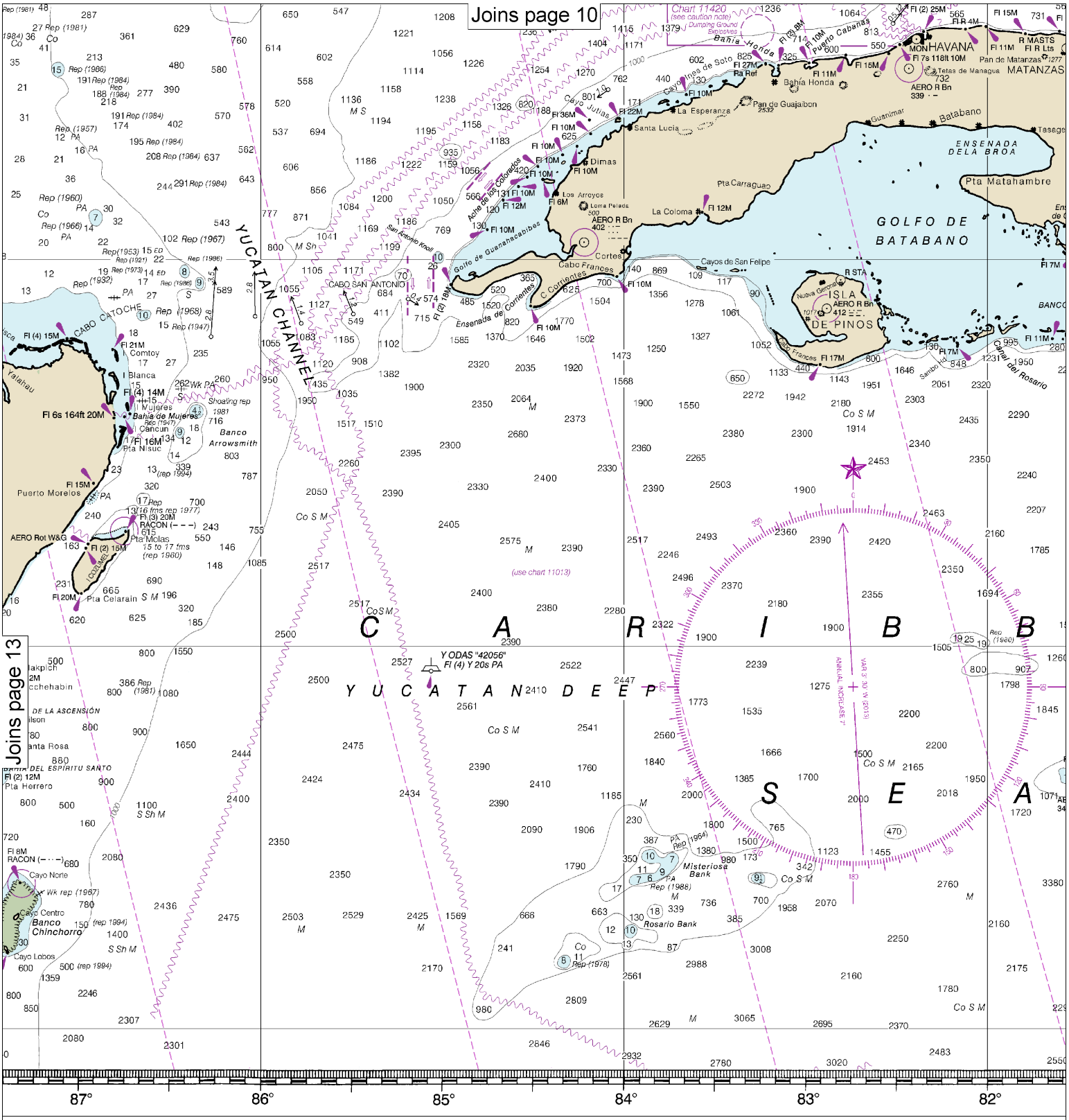
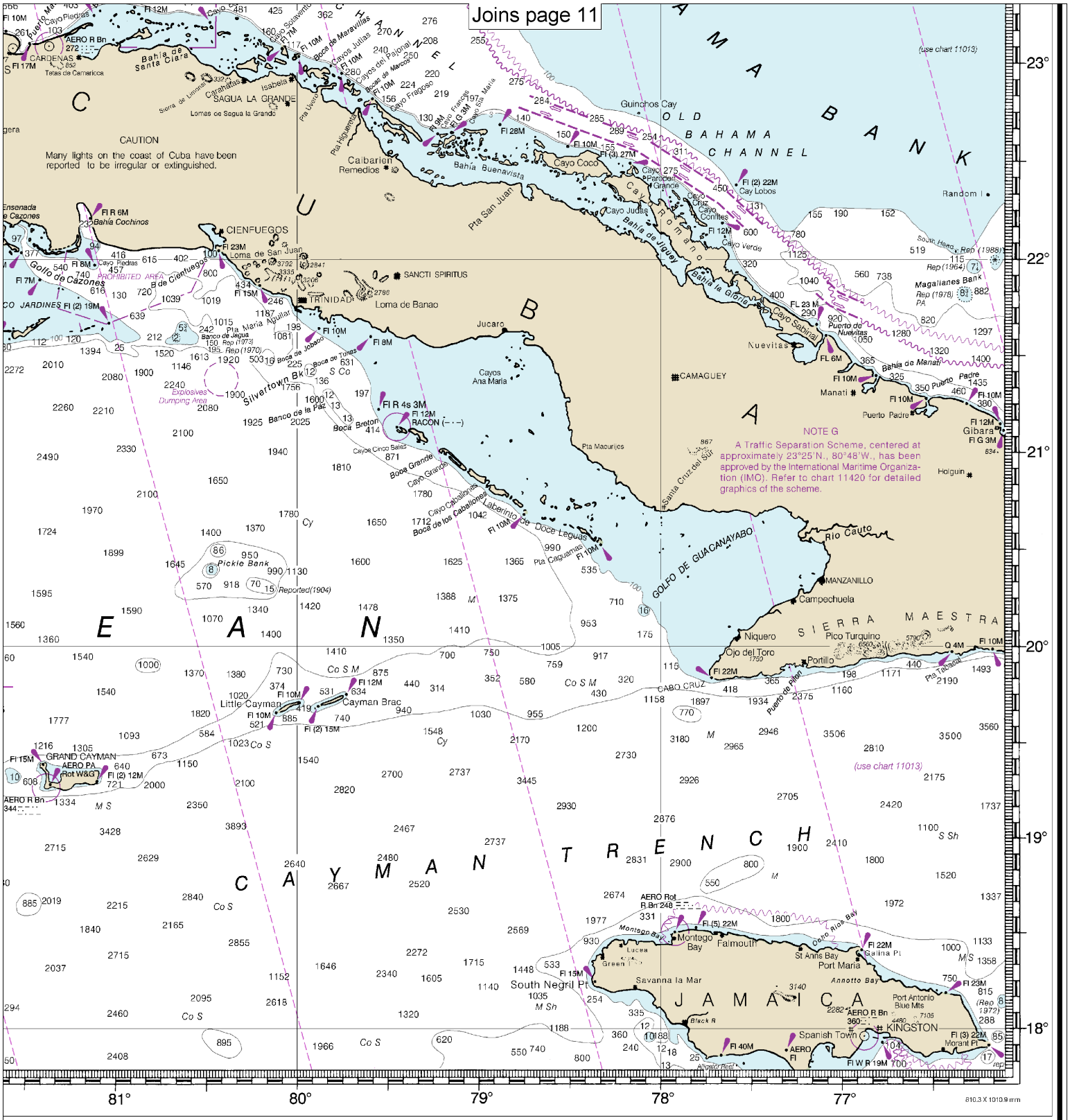
COAST SURV



Published at Washington, D.C.
DEPARTMENT OF COMMERCE
OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

SOUNDINGS IN FATHOMS

Note: Chart grid lines are aligned with true north.



FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Gulf of Mexico

SOUNDINGS IN FATHOMS - SCALE 1:2,160,000

411

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

All Hazards NOAA Weather Radio NOAA's National Weather Service

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
http://www.nws.noaa.gov/nwr/

Quick References

Nautical chart related products and information	—	**http://www.nauticalcharts.noaa.gov**
Interactive chart catalog	—	**http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml**
Report a chart discrepancy	—	**http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx**
Chart and chart related inquiries and comments	—	**http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs**
Chart updates (LNM and NM corrections)	—	**http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html**
Coast Pilot online	—	**http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm**
Tides and Currents	—	**http://tidesandcurrents.noaa.gov**
Marine Forecasts	—	**http://www.nws.noaa.gov/om/marine/home.htm**
National Data Buoy Center	—	**http://www.ndbc.noaa.gov/**
NowCoast web portal for coastal conditions	—	**http://www.nowcoast.noaa.gov/**
National Weather Service	—	**http://www.weather.gov/**
National Hurrican Center	—	**http://www.nhc.noaa.gov/**
Pacific Tsunami Warning Center	—	**http://ptwc.weather.gov/**
Contact Us	—	**http://www.nauticalcharts.noaa.gov/staff/contact.htm**

twitter —— For the latest news from Coast Survey, follow **@NOAAcharts**

This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey The Nation's Chartmaker